



United States
Department of
Agriculture

Forest
Service

Shasta-Trinity NFs
2400 Washington Ave.
Redding, CA 96001

Reply To: 3420

Lat 41.31626
Lon -121.63708

Date: March 10, 1992

Subject: Sandy Timber Sale, McCloud RD (Report No. N92-1)

To: Forest Supervisor, Shasta-Trinity NFs

Sierra Pacific Industries is the purchaser of the Sandy Timber Sale on the McCloud RD. The Purchaser's Representative, Mark A. Bosetti, requested an examination of the sale area to determine if "Catastrophic Damage" had occurred, as detailed in contract clause B2.133. Some of the readily accessible units in the sale were examined on February 28, 1992. The following people were present:

Dave Schultz	Entomologist	Forest Pest Management, Redding
Lee Bunnell	Timber Sales	Shasta-Trinity NFs, SO
Carol McAlpine	Timber Appraiser	Shasta-Trinity NFs, SO
Bill McBain	Timber Ops. Officer	Shasta-Trinity NFs, McCloud RD
Len Park	Sale Administrator	Shasta-Trinity NFs, McCloud RD
Mark Bosetti	Purchaser's Rep.	Sierra Pacific Industries
Ron Andrews	Contract Logger	Ron Andrews Logging.

Almost all of the mortality observed was white fir. The distribution of the mortality was clumped. Both inside, and outside the sale units, white fir mortality will cause some spots to be understocked. Older mortality indicates that white fir mortality has been increasing for at least two years. The current mortality consists of trees attacked by the fir engraver, Scolytus ventralis, during the late summer of 1991. Some of the current mortality has completely orange foliage. When examined in late February, at least half of the dead white fir had only a few obvious signs of faded foliage. The other outward signs of fir engraver attack, such as resin streams or frass piles, are very difficult to detect. Chopping off bark to reveal fir engraver galleries is the only absolute method to prove that some trees are dead at this time. Foliage of dead white firs should fade quickly as the weather warms.

The total volume of the Sandy Timber Sale is estimated to be 9.9 MMBF, of which 3.25 MMBF is red fir or white fir. Based on the total volume of fir included in the sale, and on a visual estimate of the fir mortality, it is my opinion that at least 1MMBF is currently dead or dying within the Sale Area. The mortality is not evenly distributed. Units which had a mixture of tree species generally had low current mortality. Rapid salvage of the current white fir mortality can avoid some losses to deterioration. Many of the white fir with recently faded foliage still show no signs of insect infestation in the butt log. Root grafts to adjacent trees have prevented the rapid and sudden death of some white firs.





Rapid salvage of the dead and dying white fir would not be expected to have much effect on future mortality. The current trend of all species of tree mortality on the Forest is stable or declining. Future precipitation and stocking levels will be the factors which have the greatest influence on tree mortality. The current sale will thin the area, which should result in lower long-term mortality. A few areas may have such low stocking following mortality that they will need to be regenerated. Some of the heaviest mortality observed was on small rises, which often indicates that lava is near the surface. Because soil moisture may be very limited on sites with shallow soils, ponderosa pine is generally a better long-term choice for regenerating these sites than white fir. On sites which will support a mixture of species, the greatest diversity of appropriate species will tend to promote the most stable future stand.

David E. Schultz

David E. Schultz
Entomologist
Forest Pest Management
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